REMARKS

In the Office Action, the Examiner reviewed claims 1-40 of the above-identified US Patent Application, with the result that claims 21-40 were withdrawn from consideration due to a restriction requirement, the drawings were objected to, and claims 1-20 were rejected. In response, Applicants have amended the specification and claims as set forth above. More particularly:

The title of the invention has been amended at page 1 of the specification so as to be more descriptive of the invention recited in the elected claims.

The specification has been amended at paragraph [0023] to correctly identify the slots and pegs shown in Figures 5 and 6 with reference numbers 48 and 50, respectively, as these features are shown and identified in Figures 5 and 6.

Independent claim 1 has been amended to specify the stator bar (20) as being of a dynamoelectric machine. Support for this amendment can be found in Applicants' specification at paragraph [0006].

Independent claims 1 and 13 have been amended to specify that the outer insulation (24) is groundwall insulation. Support for these amendments can be found in Applicants' specification at paragraph [0006].

Independent claims 1 and 13 and their respective dependent claims 12, 18, and 20 have been amended to specify that the at least one extruded member (26,28) comprises an electrical insulation layer (34), as opposed to merely containing an

electrical insulation material (as originally recited in these claims). Support for these amendments can be found in Applicants' specification at paragraph [0018].

Dependent claims 2 and 3 and independent claim 13 have been amended to specify that the opposing pair of edges (40,42) abut each other so as to define a seam that is substantially parallel to the longitudinal length of the stator bar (20). Support for these amendments can be found in Applicants' specification at paragraph [0023] and Figures 2, 3, 4, and 7.[1]

Dependent claims 2 and 14 have been amended to recite that the interlocking features (44,46) are complementary, and that each interlocking feature (44,46) is continuous along a corresponding one of the edges (40,42) so as to be substantially parallel to the longitudinal length of the stator bar (20). Support for these amendments can be found in Applicants' specification at paragraph [0020] and Figure 2.

Dependent claims 11 and 16 have been amended to specify that the member (50) is secured by an interference fit in each of a pair of opposing slots (48). Support for these amendments can be found in Applicants' specification at paragraph [0023] and Figure 6.

Dependent claim 15 has been amended to require that one of the interlocking

---

[1] According to MPEP §2163 II.A.3(a), "drawings alone may provide a 'written description' of an invention as required by [35 USC §112, first paragraph]," and "[i]n those instances where a visual representation can flesh out words, drawings may be used in the same manner and with the same limitations as the specification." (Citations omitted).

features (44,46) comprises a projection (44) that is continuous along a first (40) of the opposing pair of edges (40,42), and one of the interlocking features (44,46) is a recess (46) defined in and continuous along a second (42) of the opposing pair of edges (40,42). Support for these amendments can be found in Applicants' specification at paragraph [0020].

Finally, claims 21-40 have been canceled without prejudice to Applicants in view of the above-noted restriction requirement.

Applicants believe that the above amendments do not present new matter. Favorable reconsideration and allowance of remaining claims 1-20 are respectfully requested in view of the above amendments and the following remarks.

Objection to the Drawings

The Examiner objected to Figure 6 for containing a reference number (50) not found in the specification. In response, Applicants have amended the specification to identify the pegs with reference number 50, and to correctly identify the slots with reference number 48. Accordingly, Applicants respectfully request withdrawal of the Examiner's objection to the drawings.

Rejection under 35 USC §102

Independent claim 1 was rejected under 35 USC §102(b) as being anticipated by Japanese Patent JP402017841A to Haga et al. (Haga). Applicants respectfully request reconsideration of this rejection in view of the following comments.

As noted in §2131 of the MPEP:

> A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. The identical invention must be shown in as complete detail as is contained in the ...claim. The elements must be arranged as required by the claim, but this is not an ipsissimis verbis test, i.e. identity of terminology is not required. (Citations omitted).

Applicants' independent claim 1 requires a stator bar (20) whose outer (groundwall) insulation (24) comprises "at least one extruded member comprising . . . an opposing pair of edges parallel to the longitudinal length of the stator bar, the edges being attached together . . .."

Under this rejection, the Examiner argued that Haga discloses a stator bar 10 with "outer insulation comprising at least one member (16) containing an electrical insulation material and comprising an opposing pair (16a,16b) of edges parallel to the longitudinal length of the stator bar, the edges being attached together . . .." Reference numbers 16, 16a, and 16b in Haga designate a "protective layer" 16 made up of two

"ceramic molded pieces" 16A and 16B. The molded pieces 16A and 16B are U-shaped, with one of the molded pieces 16B being nested inside the other molded piece 16A. While the molded pieces 16A and 16B have edges that may extend parallel to the longitudinal length of the stator bar, their edges (unnumbered) are not "attached together." In fact, the edges of the molded pieces 16A and 16B are on opposite sides of the stator bar 20, and therefore could not possibly be interpreted as being attached together. Furthermore, any suggestion to abut the edges of the molded pieces 16A and 16B would completely destroy the nested assembly of the protective layer 16.

In view of the above, Applicants believe that Haga does not anticipate independent claim 1 under the test for anticipation set forth at MPEP §2131, nor can Haga be interpreted to suggest the subject matter of independent claim 1. Therefore, Applicants respectfully request withdrawal of the rejection 35 USC §102.

Rejections under 35 USC §103

Independent claims 1 and 13 and their dependent claims 2-12 and 14-20 were rejected under 35 USC §103(a). Specifically:

• claims 1, 3-7, 13, and 17 were rejected as being unpatentable over Applicants' admitted prior art (the "AAPA") in view of U.S. Patent No. 6,329,602 to Ushiyama et al. (Ushiyama);

• claims 1, 2, 8-16, and 19 were rejected as being unpatentable over U.S.

Patent No. 5,962,945 to Krenzer et al. (Krenzer) in view of U.S. Patent No. 4,909,638 to Muto; and

- claims 17, 18, and 20 were rejected as being unpatentable over Krenzer and Muto in view of U.S. Patent No. 6,420,812 to Emery.

Applicants respectfully request reconsideration of these rejections in view of the claims as amended and the following comments.

Applicants invention is directed to an extruded groundwall insulation (24) for a stator bar (20) of an electric machine. Paragraphs [0001] and [0006]. The groundwall insulation (24) surrounds the perimeter of the stator bar (20) and extends along a longitudinal length of the bar (20). The groundwall insulation (24) comprises at least one extruded member (26,28) having an electrical insulation layer (34) and an opposing pair of edges (40,42) parallel to the longitudinal length of the bar (20). The edges (40,42) are joined together so that the perimeter of the bar is entirely enclosed by the extruded member (26,28). Paragraph [0007]. An important aspect of the groundwall insulation (24) is the ability to manufacture the insulation (24) without forming voids that would reduce performance reliability. Paragraphs [0004], [0005], [0007], and [0009].

The edges (40,42) preferably abut each other to define a seam that is substantially parallel to the longitudinal length of the stator bar (20), and along which

the edges (40,42) are attached together.

Under the first §103 rejection, the Examiner explained that the AAPA

> discloses the invention as substantially claimed except for the at least one member (15) comprising an opposing pair of edges parallel to the longitudinal length of the stator bar, wherein the edges are welded together.

The Examiner then cited Ushiyama as disclosing "an insulating member (30, Fig. 12) comprising an opposing pair of edges parallel to each other in the longitudinal length, wherein the edges are welded together," and concluded that "[i]t would have been obvious that instead of wrapping insulating tape to form the member (15), one skilled in the art would simplify the step of enclosing the stator bar by using the insulating member taught by Ushiyama et al. to enclose the stator bar of [the AAPA]."

However, Ushiyama merely discloses various tubes for "protecting" a wiring harness and "preventing noises caused by the hitting of the cables with each other." Column 1, lines 9-14. The tubes are formed of "a foamed flexible sheet" (e.g., sheet 5 in Figure 2), and the interior of each tube is coated with a smooth cover layer (e.g., layer 3 in Figure 2) to facilitate inserting a cable or wires 55 through the tube. Column 2, lines 1-8; column 4, line 45-column 5, line 6. Specific to Ushiyama's Figure 12, the tube D (cylindrical body 30) surrounds a connector 54' with a rectangular cross-section,

and

> has the function of protecting the cable 55, the function of preventing the noises caused by the contacting of the cables 55 with each other, and the function of being formed into a shape corresponding to outer peripheral walls (54a') of an electrical component (54') or to the layering path of a wiring harness (50).
>
> Column 6, line 65-column 7, line5; column 7, lines 16-30.

Notably, nowhere does Ushiyama ever disclose or even suggest that any of the disclosed tubes (including the tube D of Figure 12) is formed of an electrical insulating material. Therefore, Ushiyama's tubes are not related to electrical insulating materials (in the electrical arts), but instead are merely protective coverings (in the mechanical arts). See MPEP 2141.01(a), and particularly the following passage thereof.

> "In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." ("A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem."). (Citations omitted.)

Applicants believe that one attempting to provide groundwall insulation for a stator bar (i.e., in the electrical arts) would not have any reason to look to Ushiyama or any other document that pertains to a covering that is merely intended to provide physical

protection against rubbing (i.e., in the mechanical arts). Applying the above rule set forth in MPEP 2141.01(a):

- Ushiyama's coverings are outside the field of Applicants' endeavor

(mechanical versus electrical arts, respectively); and

- Ushiyama is not reasonably pertinent to the particular problem with which Applicants were concerned - the matter with which Ushiyama deals (a protective tube that can be readily slipped onto a cable or wire) would not have logically commended itself to Applicants' attention in considering the problem solved by Applicants' invention (electrical insulation fabricated to be void-free for performance reliability).

For the above reasons, Applicants believe that Ushiyama is not properly combinable with the AAPA in order to arrive at Applicants' invention, and therefore respectfully request withdrawal of the first rejection under 35 USC §103.

Under the second §103 rejection, the Examiner explained that "Krenzer et al. discloses the invention substantially as claimed including the at least one member 9 being an extruded plastic sleeve (col. 3, lines 50-52)," but acknowledged that "Krenzer et al. does not disclose the at last one member containing an opposing pair of edges parallel to the longitudinal length of the stator bar, wherein the edges comprise interlocking features that physically secure the edges together." The Examiner then cited Muto as disclosing "a covering member comprising an opposing pair of edges

parallel to each other in the longitudinal length, wherein the edges comprise interlocking features that physically secure the edges together (Figs 1-14)."

However, Muto's "covering member" is not in any way related to electrical insulating materials (in the electrical/material arts), but instead is merely a bush bearing (in the mechanical arts). Therefore, it is Applicants' belief that one attempting to provide groundwall (electrical) insulation for a stator bar would not have any reason to look to Muto or any other document that merely pertains to a bush bearing, because bush bearings are completely outside the field of Applicants' endeavor, and the matter with which Muto deals (a clinch-type bush bearing that has high accuracy in out of roundness; column 1, lines 45-50) is not pertinent at all to the particular problem with which Applicants were concerned (void-free electrical insulation for performance reliability). MPEP 2141.01(a).

For the above reasons, Applicants believe that Muto cannot be combined with Krenzer in order to arrive at Applicants' invention, and therefore respectfully request withdrawal of the second rejection under 35 USC §103.

Finally, in view of the Applicants' arguments regarding the combination of Krenzer and Muto, it is apparent that Emery cannot be said to supplement the teachings of Krenzer and Muto in order to arrive at Applicants' invention. Specifically, Emery merely discloses the well-known practice of providing conductive materials on the

interior and exterior surface of groundwall insulation (see paragraph [0019] of Applicants' specification). Therefore, Applicants therefore respectfully request withdrawal of the third rejection to the claims under 35 USC §103.

Closing

In view of the above, Applicants believe that all issues outstanding from the Office Action have been addressed, and that the claims define patentable novelty over all the references, alone or in combination, of record. It is therefore respectfully requested that this patent application be given favorable reconsideration.

Should the Examiner have any questions with respect to any matter now of record, Applicants' representative may be reached at (219) 462-4999.

Respectfully submitted,

By
Gary M. Hartman
Reg. No. 33,898

November 8, 2004
Hartman & Hartman, P.C.
Valparaiso, Indiana 46383
TEL.: (219) 462-4999
FAX: (219) 464-1166